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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,516

04/01/2004

Heung-Yeung Shum

MS1-1884US

3162

22801 7590 04/24/2009
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EXAMINER

CASCHERA, ANTONIO A

ART UNIT

PAPER NUMBER

2628

MAIL DATE

DELIVERY MODE

04/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/817,516	Applicant(s) SHUM ET AL.	
	Examiner Antonio A. Caschera	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,30-33,35-40,42-45,55,56,58 and 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9,35-39,42-45,55 and 59 is/are allowed.
- 6) ☒ Claim(s) 1-7,30-33 and 58 is/are rejected.
- 7) ☒ Claim(s) 40 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 7, 33, 40 and 56 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

These claims comprise limitations which can already be found in their respective dependent claims, as seen in the most recent amendment filed 02/13/09.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-7 and 58 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim(s) 1-7 and 58 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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(such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, at least the "splitting" step of the claims is not positively tied to another statutory category that accomplishes the claimed step without reciting a mere field-of-use limitation. (see *Response to Arguments*)

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 30-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In reference to claim 30, newly amended claim 30 now recites, "A user interface comprising: a display screen coupled to a computing system including one or more processors and a memory..." (see lines 1-3). The claim, as written, now seems to incorporate a display screen, processor and memory as included with a user interface. This specific feature is not described in the specification in such a way to enable one skilled in the art to make or use the invention. The specification does discuss the "system" of the invention comprising a display screen, processor and memory however nowhere within the specification and/or drawings, is it

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explicitly or even by inference, stated that the user interface comprises such hardware elements. Further, one of ordinary skill in the art would interpret the “user interface” has a GUI or interface for allowing a user to input/view data into/of the system. One of ordinary skill in the art would not normally include the user interface as further comprising the display screen, processor and memory as is now indicated by the claim language as the user interface would normally be understood as software program/code/modules/routines/instructions that produce a visual output to the user. Therefore, the Examiner necessitates this rejection as per claim 30 and claims 31-33 since they depend upon claim 30 and therefore, at least inherently, suffer from the above issue.

Response to Arguments

4. The cancellation of claims 8, 10-29, 34, 41, 48-54 and 57 is noted.
5. Applicant’s arguments, see page 14 of Applicant’s Remarks, filed 02/13/09, with respect to the objection to the abstract have been fully considered and are persuasive. The objection of the abstract has been withdrawn since minor informalities have been corrected for.
6. Applicant’s arguments, see page 14 of Applicant’s Remarks, filed 02/13/09, with respect to the objection to the drawings have been fully considered and are persuasive. The objection of the drawings has been withdrawn since all reference numbers have now been accounted for.
7. Applicant’s arguments, see page 15 of Applicant’s Remarks, filed 02/13/09, with respect to the objection to claims 9 and 44 have been fully considered and are persuasive. The objection of these claims has been withdrawn since minor informalities have been corrected for.

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8. Applicant's arguments, see page 15 of Applicant's Remarks, filed 02/13/09, with respect to the 35 USC 101 rejection of claims 30-33, 40, 42, 43, 45 and 59 have been fully considered and are persuasive. The 35 USC 101 rejection of these claims has been withdrawn.

9. Applicant's arguments, see pages 15-17 of Applicant's Remarks, filed 02/13/09, with respect to 35 USC 103 rejection of the claims have been fully considered and are persuasive. The 35 USC 103 rejection of the claims has been withdrawn since a previously objected for containing allowable subject matter claim has been amended into the independent claims. Note, a further prior art search has not yielded any additional applicable, as per prior art rejection purposes, results.

10. Applicant's arguments filed 02/13/09 have been fully considered but they are not persuasive.

In reference to claims 1-7 and 58, Applicant argues that the amendments made to claim 1 remedy the previous 35 USC 101 rejection (see page 15 of Applicant's Remarks). In response, the Examiner disagrees. According to the current practices and procedures of the Office, the addition of a general computer or processor to perform a step of the recited method is not sufficient to render an otherwise ineligible method claim patent eligible. Speaking for the "splitting" step of claim 1, some sort of specific processor or hardware device/unit is needed to be recited as accomplishing this claimed step in order to be sufficient to overcome the rejection. Examiner suggests reviewing the specification and amending the claim language to recite the specific hardware unit that performs such a step or any one of the other steps, again as long as such language is not a mere field-of-use or general purpose limitation. The Examiner however, maintains the current 35 USC 101 rejection upon these claims.

Allowable Subject Matter

11. Claims 9, 35-39, 42-45, 55 and 59 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

In reference to claims 9, 35, 44 and 55, the prior art of record does not explicitly disclose one or more computer-storage media comprising instructions stored thereon, a system or an apparatus which splits a scene into one or more coherent layers, propagates boundaries of the coherent layers, renders the coherent layers with a corresponding background layer to display a virtual view of the scene and wherein the background layer is provided by combining a plurality of under-segmented regions in combination with the further limitations of claims 9, 35, 44 and 55 respectively.

In reference to claims 36-39, 42, 43, 45 and 59, these claims depend upon claims 35 and 44 and are therefore also deemed allowable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Friday between 7:00 AM and 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

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/Antonio A Caschera/

Primary Examiner, Art Unit 2628

4/24/09